

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB2004/003310

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 C12N1/20 C12Q1/68 A61K39/02

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, Sequence Search, EMBASE, BIOSIS, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE EMBL 'Online! 21 October 2001 (2001-10-21), "Bacteroides sp. 0103 800 partial 16S rRNA gene, strain 0103 800" XP002313696 retrieved from EBI accession no. EM_PRO:BSP416906 Database accession no. AJ416906 the whole document</p> <p style="text-align: center;">----- -/--</p>	1-3,5,11

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the International search

20 January 2005

Date of mailing of the International search report

31/01/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE EMBL 'Online!  14 January 2001 (2001-01-14), "Tannerella  forsythensis gene for 16S rRNA,  strain:TR6."  XP002313697  retrieved from EBI accession no.  EM_PRO:AB053947  Database accession no. AB053947  the whole document</p>	1-3,5,9, 11
X	<p>WO 03/054755 A (HARDHAM JOHN MORGAN ;  KRISHNAN RAJENDRA (US); PFIZER PROD INC  (US); DR) 3 July 2003 (2003-07-03)  page 48, line 30 - page 53, line 24  claims 1-15</p>	1-3,5, 11-29
X	<p>-&amp; DATABASE Geneseq 'Online!  25 March 2004 (2004-03-25), "Porphyromonas  gulae B69 16S rRNA DNA."  XP002313698  retrieved from EBI accession no.  GSN:ADH52847  Database accession no. ADH52847  the whole document</p>	1-3,5,11
A	<p>PASTER B J ET AL: "Bacterial diversity in  human subgingival plaque"  JOURNAL OF BACTERIOLOGY, WASHINGTON, DC,  US,  vol. 183, no. 12, June 2001 (2001-06),  pages 3770-3783, XP002237325  ISSN: 0021-9193  page 3780, left-hand column, paragraph 3 -  page 3782, last paragraph</p>	1-35
A	<p>WO 99/08691 A (SPACCIAPOLI PETER ; NELSON  ERIC (US); PERIODINTIX INC (US); FRIDEN  PHI) 25 February 1999 (1999-02-25)  page 5, line 19 - page 6, line 6  examples 2-4  claims 1-30</p>	1-35

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 5-6, 30-33 completely, 1-4, 11-29 partially

isolated pigmented anaerobic bacterium characterized by a 16S rRNA DNA sequence at least 95 % homologous to SEQ 3, 6, 9, 10 or 13, or a biologically pure culture of said bacteria. An immunogenic composition comprising said bacterium, a vaccine made thereof, and methods for treating, preventing or diagnosing periodontal disease in companion animals

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2. claims: 7-8, 34 completely, 1-4, 11-29 partially

same as for invention 1 but with 16S rRNA sequences at least 95 % homologous to SEQ 4.

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3. claims: 9-10, 35 completely, and 1-4, 11-29 partially

same as for invention 1 but with 16S rRNA sequences at least 95 % homologous to SEQ 5.

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### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claim 18 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/003310

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03054755	A	03-07-2003	BR 0205775 A	03-08-2004
			WO 03054755 A2	03-07-2003
			US 2003228328 A1	11-12-2003
			US 2005010032 A1	13-01-2005
WO 9908691	A	25-02-1999	US 6153210 A	28-11-2000
			AU 9017898 A	08-03-1999
			CA 2301065 A1	25-02-1999
			EP 1011693 A1	28-06-2000
			JP 2001515042 T	18-09-2001
			NO 20000688 A	15-03-2000
			WO 9908691 A2	25-02-1999